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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/992,318	11/19/2001	Wilhelm Maccarone	72061	7399

25862 7590 10/23/2002

RIDER, BENNETT, EGAN & ARUNDEL
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EXAMINER

VERBITSKY, GAIL KAPLAN

ART UNIT PAPER NUMBER

2859

DATE MAILED: 10/23/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/992,318

Applicant(s)

Maccarone

Examiner

Gail Verbitsky

Art Unit

2859



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on _____
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 6, and 9-24 is/are rejected.
- 7) ☒ Claim(s) 3-5, 7, 8, and 25 is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4(1pg) 6) ☐ Other:

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DETAILED ACTION

Claim Objections

1. Claims 1, 16 are objected to because of the following informalities:

Claim 1: "the plate" in line 7 lacks antecedent basis,

Claims 1, 16: Perhaps applicant should replace "to use" in lines 7 and 9 respectively with --to be used-- in order to clearly describe the invention. Is this a proper interpretation of the invention? Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-2, 6, 16, 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Ensor (U.S. 3631708).

Ensor discloses in Fig. 1 a portable temperature verification device (mat/ cover) 16 comprising a sheet (below) of thermally conductive material 20 having two opposite surfaces. A first (inside) surface is blackened and thus, constitutes a blackbody reference target which serves as a source of infrared radiation for an IR thermometer. Ensor also discloses a reversible (mercury) contact thermometer 26 adjacent to the blackbody target for comparison with reading

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of the IR thermometer directed (focused) onto the black body target in order to be calibrated. A part of a second surface A is flat and releasably attachable to an object 15 whose temperature is desirable for temperature calibration/ verification. The sheet is made of a metal and thus, substantially rigid. The object can be heated or cooled, thus suggesting that a temperature range in which the IR to be calibrated can vary. (The numeral A has been added by the Examiner, see attachment # 1 to the Office action).

4. Claims 1-2, 6, 14-18, 24 are rejected under 35 U.S.C. 102(b) as being anticipated by Engborg (U.S. 3348408).

Engborg discloses in Figs. 1-2 a device (mat/ cover) 3 comprising a sheet (rigid metal tube, col. 3, line 52) of a thermally conductive material having two opposite surfaces. A first (inside) surface is blackened thus, constitutes a blackbody reference target which serves as a source of infrared radiation for an IR thermometer. Engborg also discloses a reversible (mercury) contact thermometer 5 adjacent to the blackbody target for comparison with reading of the IR thermometer directed (focused) onto the black body target in order to be calibrated. The second surface A is flat and releasably attachable to an object 1 whose temperature is desirable for temperature calibration/ verification. The object (water) can be heated or cooled and can be used in temperature range 70 to 100 degrees in Fahrenheit (approximately 20 to 40 degrees in Celsius), thus suggesting a temperature range in which the IR to be calibrated. Engborg states that for other temperature ranges other liquids (objects) can be used and the range of the

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thermometer 5 must be chosen to correspond to the desired temperature range (col. 3, lines 39-44). Thus, Engborg suggests to use appropriate (different) contact thermometers for different temperature ranges. (The numeral A has been added by the Examiner, see attachment # 2 to the Office action).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 9-13, 19-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Engborg.

Engborg discloses the device as stated above in paragraph 4.

Engborg does not explicitly teaches any particular temperature range, as stated in claims 9-13 and 19-23.

With respect to the particular temperature ranges (i.e., 25 to 100, -25 to -3, -14 to +31, 0 to 12, 14 to 31 degrees): the particular temperature ranges, claimed by applicant, absent any criticality, is only considered to be the “optimum” or preferred” temperature range that a person having ordinary skill in the art at the time the invention was made would have found obvious to provide using routine experimentation based, among other things on the intended use of the

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device, the object being used and the need of the specific IR thermometers to be calibrated. See In re Boesch, 205 USPQ 215 (CCPA 1980).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device disclosed by Engborg, so as to make it useful at different temperature ranges, so as to have one universal device for calibrating a plurality of different IR thermometers.

Allowable Subject Matter

7. Claims 3-5, 7-8, 25 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art cited in the PTO-892 and not mentioned above disclose related devices and methods..

9. Any inquiry concerning this communication should be directed to Examiner Verbitsky who can be reached at (703) 306-5473 Monday through Friday, 7:30 to 4:00 ET.

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Any inquiry of general nature should be directed to the Group Receptionist whose telephone number is (703) 308-0956.

GKV

October 15, 2002

Gail Verbitsky

A handwritten signature in cursive script, appearing to read "G. Verbitsky".

Patent Examiner, TC 2800

UNITED STATES PATENT

[11] 3,631,708

[72] Inventor **Robert T. Ensor**
Redding, Conn.
 [21] Appl. No. **884,098**
 [22] Filed **Dec. 11, 1969**
 [45] Patented **Jan. 4, 1972**
 [73] Assignee **Barnes Engineering Company**
Stamford, Conn.

3,419,709 12/1968 DeBell..... 250/85

OTHER REFERENCES

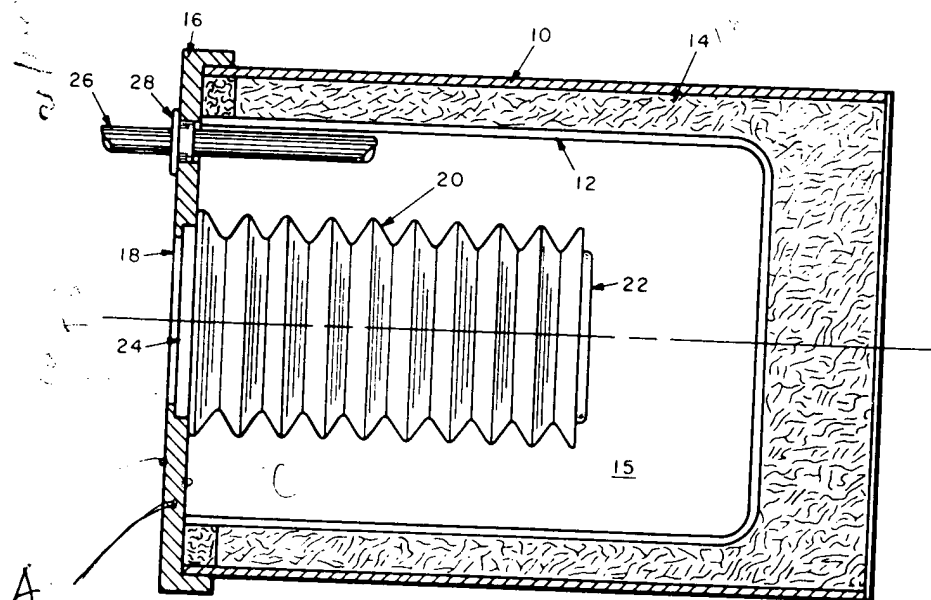
Kostkowski, H. J. et al. in *Temperature Its Measurement and Control in Science & Industry Vol. III* Herzfeld ed. Part I. Basic Concepts, Standards and Methods, Brickwedde, ed. Reinhold Pub. Co. N.Y. 1962 paper No. 47 pages 460 & 461 relied upon QC271AG

Primary Examiner—S. Clement Swisher
 Attorneys—Joseph Levinson and Robert Ames Norton

[54] **LIQUID BATH REFERENCE CAVITY**
2 Claims, 1 Drawing Fig.
 [52] U.S. Cl. 73/1 F,
 250/84
 [51] Int. Cl. G01J 5/00
 [50] Field of Search..... 73/1 F, 355;
 250/84, 85

[56] **References Cited**
UNITED STATES PATENTS
 3,348,408 10/1967 Engborg..... 73/1 F

ABSTRACT: An improved liquid-bath-type reference cavity is provided, in which the cavity is formed by a closed-end metallic bellows. The walls of the bellows are fabricated from good thermal conducting materials with very thin wall thickness, which increases the effective surface area in contact with the liquid and provides a rapid stabilization of the cavity to the temperature of the liquid bath in which it is immersed.



A
 (second
 surface
 flat part)

attachment #1

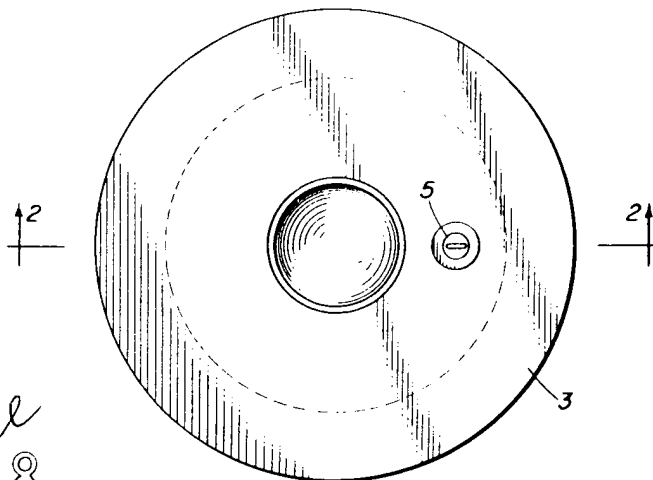
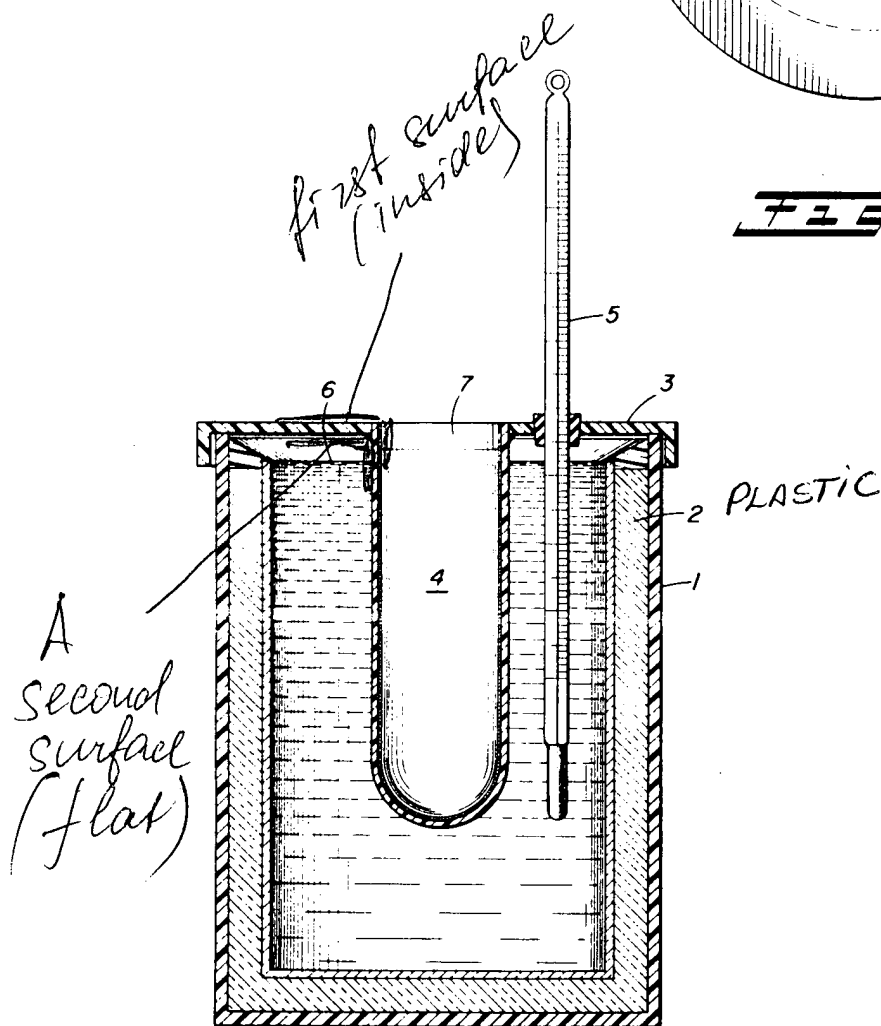
Oct. 24, 1967

N. E. ENGBORG

444 731
3,348,408

REFERENCE SOURCE FOR CALIBRATION OF THERMOGRAPHIC INSTRUMENTS

Filed April 1, 1965

**FIG - 1****FIG - 2**INVENTOR.
NELSON E. ENGBORGBY
Robert H. Martin
ATTORNEY

attachment #2